Review of the delivered price of natural gas in Albury and Moama:

A CONSULTATION PAPER

INDEPENDENT PRICING AND REGULATORY TRIBUNAL
OF NEW SOUTH WALES

INDEPENDENT PRICING AND REGULATORY TRIBUNAL
OF NEW SOUTH WALES

Review of the delivered price of natural gas in Albury and Moama: A CONSULTATION PAPER

Gas 98-1 **March 1998**

Submissions

Public involvement is an important element of the Tribunal's processes. The Tribunal therefore invites submissions from interested parties to all of its investigations.

Submissions should have regard to the specific issues that have been raised. There is no standard format for preparation of submissions but reference should be made to relevant issues papers and interim reports. Submissions should be made in writing and, if they exceed 15 pages in length, should also be provided on computer disk in word processor, PDF or spreadsheet format.

Confidentiality

Special reference must be made to any issues in submissions for which confidential treatment is sought and all confidential parts of submissions must be clearly marked. *However, it is important to note that confidentiality cannot be guaranteed as the Freedom of Information Act and section 22A of the Independent Pricing and Regulatory Tribunal Act provide measures for possible public access to certain documents.*

Public access to submissions

All submissions that are not subject to confidentiality will be made available for public inspection at the Tribunal's offices immediately after registration by the Tribunal and also via the Tribunal's website. Transcriptions of public hearings will also be available.

Public information about the Tribunal's activities

A range of information about the role and current activities of the Tribunal, including copies of latest reports and submissions can be found on the Tribunal’s website at www.ipart.nsw.gov.au.

Submissions on the issues raised in this paper should be received no later than 15 April 1998.

Comments or inquiries regarding this report should be directed to:
Sally Mander ☎02-9290 8406, Penny Price ☎02-9290 8403
or Elsie Choy ☎02-9290 8488

Independent Pricing and Regulatory Tribunal of NSW
Level 2, 44 Market Street Sydney NSW 2000
Tel ☎ (02) 9290 8400 Fax (02) 9290 2061
All correspondence to: PO Box Q290, QVB POST OFFICE, SYDNEY NSW 1230

TABLE OF CONTENTS

GLOSSARY AND ACRONYMS

ACCC	Australian Competition and Consumer Commission.
Access Undertaking	The document by which a distributor undertakes to provide access to its system by system users, per section 20(1) of the *Gas Supply Act 1996.*
AGC	Albury Gas Company Limited.
CAPM	Capital Asset Pricing Model, a model that relates the required return of an asset to the risks associated with that asset.
City gate	Transition point from high pressure transmission pipelines to distribution network.
CPI	Consumer Price Index.
DAC	Depreciated Actual Cost; historic cost adjusted for depreciation.
Distribution	Transport of gas over a combination of high pressure and low pressure pipelines from a city gate to various customers' usage points. Also known as reticulation.
DORC	Depreciated Optimised Replacement Cost is the replacement cost of an "optimised" system.
EPD	Energy Projects Division, a division of the Victorian Treasury.
FDC	Fully Distributed Costs.
Haulage	see Transmission.
IPART	Independent Pricing and Regulatory Tribunal of NSW.
ORG	Office of the Regulator General.
Reticulation	See Distribution.
Tariff customer	Gas customer consuming less than 10 TJ per annum.
TJ	Terajoule, equal to 1,000 GJ.
Transmission	Long haul transportation of gas via high pressure pipelines.
WACC	Weighted Average Cost of Capital.

1 INTRODUCTION

The Independent Pricing and Regulatory Tribunal of New South Wales (IPART) commenced its review of the delivered price of natural gas in Albury and Moama in August 1997. The purpose of the review is to determine whether the delivered price of natural gas to the tariff markets in these towns should be regulated, and if so, how prices should be regulated. In establishing whether there is a need for regulation, the Tribunal is now in the process of determining whether:

- gas is being delivered at least cost
- current prices are reasonable
- satisfactory service is being delivered to customers
- suppliers are receiving an appropriate, but not excessive, return.

The *NSW Gas Supply Act 1996* empowers the Tribunal to establish a pricing mechanism for delivered gas to tariff customers. Known as a gas pricing order, this is issued pursuant to section 27 of the Act. Essentially, section 27 of the NSW Gas Supply Act 1996 states a gas pricing order can:

- establish a methodology to determine prices paid by tariff customers for delivered gas
- establish maximum tariffs or maximum average tariffs
- prohibit the imposition of certain charges.

As part of its review, IPART has also called for comments on the appropriate duration of any gas pricing order put in place.

1.1 Review process

Part 4 of the Independent Pricing and Regulatory Tribunal Act 1992 details the procedure for conducting investigations[1]. This procedure involves requesting information, holding hearings, and registering and disseminating information and submissions furnished to the Tribunal.

To help IPART formulate its recommendations, an issues paper was published in August 1997, submissions were sought, and a combined public hearing for Great Southern Energy and Albury Gas Company (AGC) was held in Wagga Wagga in early November 1997.

1.2 Purpose of this report

The purpose of this report is to inform interested parties and stakeholders on the progress of the review. This paper summarises information provided by AGC for the purposes of determining appropriate delivered gas prices to tariff market customers in Albury and Moama.

Following continued assessment and analysis of the information provided by the AGC, the Tribunal met on 5 February 1998 to consider the Secretariat's analysis of the delivered price of gas to the tariff market in Albury and Moama. At that meeting the Tribunal decided to defer any determination on the delivered price of gas to the tariff market in Albury and

[1] Part 4 of the IPART Act is invoked by Section 32 (2) of the Gas Supply Act in relation to investigations under the Gas Supply Act.

Moama until IPART had considered access pricing in those areas[2]. The importance of considering access prices concurrently with delivered prices is that access prices (the prices paid by users to transport gas through a pipeline system) represent around 40 to 50 percent of the delivered price of natural gas to tariff customers.

The AGC owns and operates the distribution pipeline system in Albury and Moama. An Access Undertaking which outlines the terms and conditions of access to this system is due to be established in Albury by July 1 1998.

The following chapters:

- provide a background on the AGC operational structure
- outline the proposal submitted by AGC
- discuss the role of asset value and rate of return when considering a sustainable revenue stream
- consider the current and proposed positions of AGC.

It should be noted that the matters outlined in the following chapters are presented for discussion only. They do not represent the views of the Tribunal and the Tribunal will not be limited to a consideration of these matters when making its final determination and any gas pricing order. As noted, this paper has been issued as part of the Tribunal's consultation process and is designed to provoke further discussion and input.

The Tribunal welcomes comments from interested parties in regards to the delivery of gas to tariff customers in Albury and Moama. All public submissions will be available on the Tribunal's Internet home page – *www.ipart.nsw.gov.au* - and from the Tribunal offices.

1.3 Background

The AGC supplies gas in Albury, Moama and the NSW Murray Valley towns. Until recently, AGC was a wholly owned subsidiary of the Victorian Government public authority, GASCOR, with all of its functions carried out by GASCOR. From 1 December 1997, Albury Gas Company became a wholly owned subsidiary of Stratus Networks.

Stratus Networks owns and operates distribution networks serving customers in northern and south-eastern Victoria as well as the Mornington Peninsula. Whilst owned by Stratus Networks in Victoria, the AGC distribution network is a discrete network which serves customers in New South Wales (NSW) only and has its own audited financial accounts.[3] Energy 21, one of the three newly created retailers in Victoria provides retailing functions to AGC.

Natural gas was officially turned on at the Albury city gate on 2 June 1977. Reticulation of natural gas into the village of Jindera commenced on 29 August 1995 and into Moama 2 days later. In early 1996, the Company was authorised to provide delivered gas to the Murray Valley towns in NSW and Victoria. Delivered gas prices to the NSW Murray Valley towns are considered separately to Albury and Moama.

2 An Access Undertaking will be submitted to IPART by AGC for approval.

3 These audited financial accounts are publicly available.

2 ALBURY GAS COMPANY PROPOSAL

In its submission to the review[4], AGC has requested a 1.3 percent increase in the delivered price of natural gas to all tariff customers served in Albury and Moama. AGC noted that the initial 1.3 percent increase would align the delivered price of natural gas to tariff customers in NSW with that charged in Wodonga and Echuca in Victoria. The 1.3 percent increase is not linked to movements in the past consumer price index (CPI)[5] as was stated in the AGC submission.[6]

In addition to the 1.3 percent price increase in 1997/98, AGC proposed a further increase in 1998/99 of no more than the change in the CPI (AGC has assumed a Victorian CPI of 3 percent).

The following table provides a summary of the information provided by AGC in their submission and additional information provided subsequently.

Table 2.1 Summary of Albury Gas Company Proposal 1997/98

Proposal	**($'000)**
Cost of gas and haulage	9,200
Depreciation	675
Return on capital ($23.5m @ 10.16%)	2,387
Retail margin	2.3 percent of total gas sales
DORC asset value	23,500
Depreciated actual cost of assets	9,500[7]
Real pre-tax rate of return	10.16%
Nominal pre-tax rate of return	13.47%

4 AGC submission, 19 September 1997.
5 AGC correspondence, 25 November 1997, p 2.
6 AGC submission, 19 September 1997, p 9, AGC correspondence, 20 November 1997.
7 AGC correspondence, 3 March 1998.

The 13.47 percent pre-tax nominal return and the 10.16 percent pre-tax real return are the same as the return proposed in the Access Arrangements for distribution networks submitted by the Energy Projects Division (EPD) of the Victorian Treasury to the Office of the Regulator General in Victoria (ORG).[8] (See section 3.3.2 for discussion on the rate of return).

The Tribunal is still considering all the items in the AGC proposal. Assessments are being made on the reasonableness of cost levels, cost trends, pass through of the cost of gas and haulage and the scope for efficiency gains.

8 The Access Arrangements are yet to be approved.

3 SUSTAINABLE REVENUE AND PRICES

3.1 Introduction

Prices should provide an opportunity for the owner of a business, in this case the 'bundled'[9] gas supplier, AGC, to be able to earn a reasonable return on its investment if services are delivered efficiently. In the case of a competitive business, the market determines the return. In the case of gas reticulation, which can be considered to be a natural monopoly, economic regulation is needed to ensure that monopoly rents or excess profits are not extracted from the market. The regulator is responsible for determining an "appropriate" return or profit margin.

Prices for the service should allow the business to earn enough revenue to cover the efficient costs of operating the business plus a margin on gas sales for the retail function. The costs include the cost of the gas (including field costs and transmission haulage), the cost of reticulation (transporting gas through the distribution network), and retail costs.

Most of these costs are relatively straight forward. The field costs are determined on a contractual basis, the transmission costs will be determined in the Access Arrangement as approved by the Australian Consumer and Competition Commission (ACCC), and retail costs are the costs incurred in marketing and on-selling the gas. The reticulation costs will need to be assessed separately by the regulator. This will form part of the access review.

3.2 Cost of gas and haulage

The field price of gas in the AGC proposal is based on a contractual arrangement between AGC's newly established retailer, Energy 21, and Esso-BHP Petroleum. The haulage costs are as detailed in the proposed Access Arrangements for the Victorian transmission system.

3.3 Reticulation costs

Reticulation costs in the AGC proposal are based on its assessment of: operating and maintenance costs, unaccounted for gas costs[10], general administrative expenses, return on assets and annual depreciation charges.

It is the return on assets, the cost of capital, and the asset valuation that present the greatest challenge for assessing the reticulation costs and hence prices for the reticulation component of the bundled gas supply business. These costs can vary considerably depending on the methodology and assumptions adopted.

In previous reviews, when determining revenue and prices, IPART opted for a methodology that considered a range of financial indicators and the present value of the revenue stream rather than simply a particular asset value or rate of return. Importantly, it also has regard to the need to maintain an appropriate standard of service and quality of supply.

---

9 The business includes the supply of gas and the transport of gas through a reticulation system.

10 Unaccounted for gas is gas lost during the transportation of gas through the pipeline network.

The range of asset values considered are consistent with the National Third Party Access Code For Natural Gas Pipeline Systems.[11] In specifically addressing the issue of establishing the initial asset base for the purposes of price determination, the Code nominates depreciated actual cost (DAC) as the floor and depreciated optimised replacement cost (DORC) as the ceiling. The financial indicators may ultimately determine a sustainable revenue outcome that is consistent with an asset value within the range determined by DAC and DORC asset valuation.

The range for rate of return proposed by the Secretariat includes both a range of real returns and nominal returns. These ranges have been developed to be consistent with prevailing market conditions (see section 3.3.2). One benchmark of a sustainable revenue stream may be consistent with the *real* return on Depreciated Optimised Replacement Cost (DORC). Another may be consistent with the *nominal* return on DAC.

To be consistent, a *real* rate of return should be applied to asset values recorded at current cost (calculated according to replacement cost or modern equivalent asset principle) and revalued over time. It is noted that under current cost accounting principles, current cost operating profit[12] is calculated on a real term basis at the pre tax, pre interest level. Similarly, a nominal return should be used with actual cost asset values.

IPART stresses that asset value is only one aspect of considering an appropriate revenue stream and corresponding prices. Further considerations are the cost of service, the quality of service, growth and maintenance, and an appropriate return on investment.

3.3.1 Asset value

IPART is aware of the tensions that exist between alternative methods of asset valuation. In considering an appropriate return on regulated assets, IPART sees considerable merit in an approach that allows it the flexibility to reflect a meaningful economic value of services provided, while ensuring that appropriate price signals are given to the infrastructure owner to encourage ongoing investment in the system. These objectives may not easily be met by rigid adherence to a particular asset valuation methodology.

The AGC natural gas distribution network was constructed in 1974. The network comprises approximately 300 kilometres of medium, low and high pressure pipes delivering gas to Albury and Moama.

At 30 June 1997, the DAC of the AGC reticulation system supplying Albury and Moama is reported as $9 million.[13] AGC has stated that the equivalent DORC for the Albury and Moama system is $23.5 million.[14] The DORC valuation includes an allowance for three years' growth for the purposes of optimisation.[15]

11 National Third Party Access Code for Natural Gas Pipeline Systems, November 1997 p 49.

12 Current cost operating profit is calculated after a working capital adjustment for the impact of general inflation on the real value of working capital to the business. Under a real financial capital maintenance concept, a financing adjustment is also allowed for maintaining the real value of shareholder's funds.

13 AGC correspondence 3 March 1998.

14 AGC correspondence to IPART, 20 November, 1997. The unit rates have been provided by AGC to the Secretariat in correspondence dated 20 November 1997.

15 Gutteridge Haskins and Davey, September 1997, Stratus Fixed Asset Valuation Reference Document, p 15.

It is interesting to compare the premium that the DORC asset value represents over DAC. The table below shows the DORC asset values proposed by NSW gas utilities regulated by IPART and the percentage of DAC each DORC valuation comprises.

Table 3.1 Gas Utility Asset Valuations (1996/97)

	DAC ($m)	DORC ($m)	DORC/DAC (%)
AGL Gas Networks	850	1450	170
Great Southern Energy	13.8	34.4	250
Albury Gas Company	9	23.5	260

The above table shows that for AGL Gas Networks, the DORC asset value is 170 percent of DAC. The DORC asset value proposed by AGC for the Albury and Moama system is 260 percent of DAC. In their submission to the tariff review, Great Southern Energy (GSE) proposed a DORC asset value for the Wagga Wagga distribution system of $34.4 million.[16] This represents 250 percent of DAC (with adjustments for the capitalisation of overheads).[17]

3.3.2 Rate of return

Several models are available for estimating the appropriate rate of return of a business. For the purposes of this review, IPART has utilised the Capital Asset Pricing Model (CAPM). CAPM relates the required return of the asset to the risks associated with that asset. The approach requires several inputs to the model to be determined, including the following:

- the rate of return on a risk free asset
- the rate of return on the equities market as a whole
- a measure of the riskiness of the utility relative to the equities market.

The weighted average cost of capital (WACC) is calculated from the utility’s cost of debt plus cost of equity. The utility’s cost of debt can be readily determined by reviewing outstanding debts and any discount or premium on their issue. The rate of return on equity is derived through the CAPM model.

The Secretariat has undertaken a detailed analysis of the proposed WACC’s and compared the proposals with approaches by other organisations. The analysis involves careful consideration of each of the WACC inputs to maintain a consistent approach across the gas utilities regulated by IPART and to ensure that the inputs are consistent with prevailing market conditions. From this analysis, the Secretariat has proposed a range of feasible inputs and WACC outcomes.

A comparison of the range proposed by the Secretariat with ranges proposed by utilities is presented in the following table:

---

16 Great Southern Energy submission (comments on issues paper), 19 September 1997, p 7.

17 IPART has commissioned JP Kenny to conduct an independent assessment of the proposed DORC asset value as it had done for the AGL access review.

Table 3.2 Comparison of WACC calculations

	Great Southern Energy proposed (low)	Great Southern Energy proposed (high)	AGL July 1997 Determination	EPD Transmission proposal	EPD Distribution proposal	IPART Secretariat proposed Range
Nominal risk free rate	8.00%	8.30%	7.3-8.3%	8.00%	8.00%	5.8-7.4%
Market risk premium	6.50%	7.00%	6-7%	6.50%	6.50%	5-7%
Equity beta	1.13	1.01	0.65-0.9	0.95	1.08	0.66-0.88
Nominal cost of debt	8.80%	9.00%	9.00%	8.75%	8.75%	Assumes debt premium of 80 points
Gearing ratio	60%	60%	40-60%	60%	60%	60%
Tax rate	36%	36%	36%	36%	36%	36%
Imputation utilisation rate	21%	15%	20-60%	25%	25%	20-50%
Real pre-tax WACC				**9.73%**	**10.16%**	**7.5-9.5%**
Nominal pre-tax WACC	**13.90%**	**14.30%**	**12.5%-13.5%**	**13.02%**	**13.47%**	**9-12%**

Notes: 1. The EPD proposals are yet to be approved by the regulators.

2. The Great Southern Energy proposal refers to the gas business and is yet to be approved by the regulator.

The main variations in the Secretariat's proposed range (see Table 3.2) from the assumptions in the 1997 AGL Determination are:

- lower risk free interest rates to reflect the reduction in market rates
- a lower estimate of the minimum market risk premium (5 percent compared with 6 percent)
- use of a gearing ratio at the upper end of the range previously assumed.

3.3.3 Quality of supply

AGC reports that the standard of service delivery to Albury and Moama customers ranks highly with benchmarked industry norms. It is also noted by AGC that work is underway to ensure continued performance in line with industry best practices and in accordance with the company's[18] declared intention of improving current high levels of performance.[19]

IPART is keen to ensure that increasing commercialisation and customer service are not competing objectives. Therefore, in considering sustainable prices and revenue, IPART also considers AGC's past and current performance in servicing its customer base. In so doing, IPART has kept in mind the recent transfer of the retailing arm of Albury Gas Company from GASCOR to Energy 21.

18 Refers to both the retail arm of Albury Gas Company, Energy 21 and the network arm of AGC Stratus Networks.

19 Albury Gas Company Limited submission, 19 September, 1997, p 17.

4 REVENUE AND FINANCIAL ANALYSIS

The revenue and financial analysis conducted to date includes an assessment of AGC's past financial performance and IPART Secretariat financial projections based on this information, relative to a broad range which the Tribunal considers reasonable. The upper limit of this range has been established by allowing a maximum real pre-tax WACC of 9.5 percent on DORC consistent with the Secretariat's WACC analysis. The lower limit of the range is set by allowing a minimum nominal pre-tax return of 9 percent on DAC. The upper and lower limits on asset valuation methodologies are consistent with the national third party access code for natural gas distribution and transmission pipelines.[20] The Secretariat has also compared its proposed range with the financial position of AGC when earning their proposed return of 10.16 percent (real pre-tax).

4.1 Past financial performance of Albury Gas Company

The following table provides a summary of AGC's financial performance for the three years from 1994/95 to 1996/97:

[20] National Third Party Access Code for Natural Gas Pipeline Systems, 1997, Section 8.10, p 49.

Table 4.1 Albury Gas Company Financial Summary

	1994/95 Actual ($'000)	1995/96 Actual ($'000)	1996/97(1) Actual ($'000)
Total operating revenue	13,682	13,873	13,952
Operating expenditure	11,777	12,126	11,199
Earnings before interest, tax and depreciation (EBITD)	1,905	1,747	2,753
Total depreciation	394	446	659
Earnings before interest and tax (EBIT)	1,511	1,301	2,094
Interest	636	616	997
Operating profit before tax	875	685	1,097
Tax equivalent	351	259	478
Operating profit after tax	524	426	619
Total capital expenditure	1,362	1,894	3,819(2)
Total assets	13,130	25,925(3)	29,044(4)
Total debt	3,348	3,275	5,360
Cash flow from operating activities	1,028	1,050	1,886

Notes :
1. 1996/97 financial results include the sole NSW Murray Valley town of Howlong. Reticulation in Howlong commenced in December 1996.
2. Capital expenditure includes new investment in the NSW Murray Valley towns gas distribution network.
3. The AGC's audited financial statements, 1995/96, p 16, note that an independent valuation of the Albury Gas Company gas distribution network was carried out at 30 June 1996 by Gutteridge Haskins and Davey Pty Ltd. The valuation used the DORC method.
4. The AGC's audited financial statements, 1996/97, p 6, note that an independent valuation of the network was carried out at 30 June 1997 by Gutteridge Haskins and Davey Pty Ltd. This valuation includes the NSW Murray Valley town of Howlong and uses the DORC method.

Table 4.1 shows that AGC is in a healthy financial position with relatively low gearing and good return. Over the past three years, the results show:

- an overall improvement in profitability
- improving operating cash flow
- increasing net debt (advances from chief entity) mainly driven by an increase in capital expenditure in NSW Murray Valley towns
- very good return outcomes in terms of actual cost and revalued asset base
- return outcomes which compare favourably with private sector average company performance
- satisfactory credit rating ratios.

To enable a balanced assessment of AGC's financial performance, the Secretariat examined a number of accounting and cash based measures in addition to the rate of return (see Appendix 1 for ratio definitions). Comparisons are made with other energy and water utilities in Table 4.2.

It should be noted that comparisons are based on consolidated entities as published in annual reports. These entities undertake a diverse range of activities which may raise issues of comparability.

Table 4.2 Financial Comparison(1) (1996/97)

	Albury Gas Company (AGC)(2)	Energy Australia	Australian Gas Light (AGL)	Sydney Water Corporation (SWC)	Great Southern Energy (GSE)
$m					
Total revenue	14	2,041	1,073	1,368	309
Net profit after tax	0.6	198	148	150	31
Total assets	29	3,609	1,822	13,845	579
Operating cash flows	1.9	169	257	396	68
Cash flow based indicators:					
Funds flow interest cover (times)	3.4	3.7	11.4	3.5	20.9
Funds flow net debt payback (years)	2.8	7.5	1.3	4.6	1.4
Internal financing ratios (%)	223%	81%	82%	217%	158%
Accounting based indicators(3)					
EBITD/Sales revenue	20%	32%	34%	57%	25%
EBIT/Operating assets	8%	13%	17%	3%	11%
Revenue/Assets	48%	57%	59%	10%	53%
Total Debt/Total Debt + Total Capital	20%	46%	28%	14%	20%

Source: 1996/97 Company annual reports.

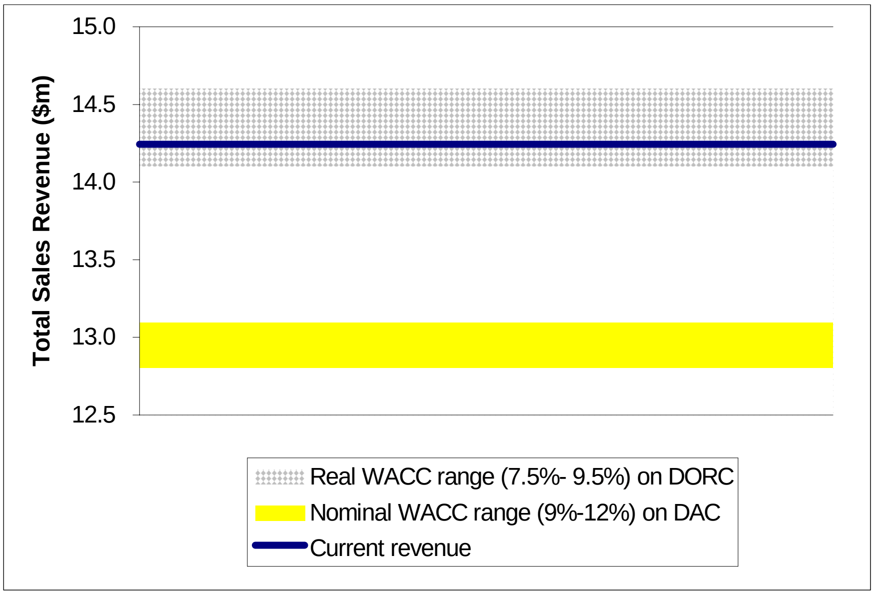
Notes:
1. Figures for comparison are based on the consolidated entity for those corporations whose operations encompass more than one activity.
2. Includes the business assets in the NSW Murray Valley town, Howlong, commissioned in December 1997.
3. The accounting measures are affected by different approaches to valuation in the public and private sectors.

Overall, AGC compares favourably with other utilities, in terms of both accounting and cash based indicators.

4.2 Financial position of Albury Gas Company

The graph below shows AGC's current revenue path (1997/98) relative to the revenue range being considered by IPART. The upper limit indicates a level of revenue consistent with a 9.5 percent real return on AGC's DORC asset value. The lower limit is the level of revenue consistent with a nominal return of 9 percent on the DAC of the AGC system.

Figure 4.1 Albury Gas Company Price Limits and total current revenue (1997/98)



The graph shows:

- a feasible range of revenue based on DORC asset values, this is due to the range of feasible estimates of the real pre-tax WACC
- a feasible range of revenue based on the DAC, this is due to the range of feasible estimates of the nominal pre-tax WACC
- a large gap between the range of revenue based on DORC, and the range based on DAC
- current revenues are within the feasible range of prices based on DORC, but well above the range based on DAC.

The following set of financial indicators for AGC in 1996/97 are based on the current revenue position of the business[21]. The financial indicators for 1997/98 and 1998/99 are Secretariat projections based on information provided by AGC (excluding the NSW Murray Valley town reticulation and gas costs in 1997/98 and 1998/99).

Table 4.3 Albury Gas Company financial indicators (1)

Stakeholder	Indicator	1996/97	1997/98	1998/99
Lenders	Funds Flow Adequacy(2)	223%	224%	193%
	Funds Flow Interest Coverage	3.37	3.00	2.66
	Funds Flow Net Debt Pay Back	2.84	0.59	0.15
	Internal Financing Ratio	223%	224%	193%
	Pretax Interest Coverage	2.10	1.97	1.91
	Total Debt/Total Capital	20%	4%	1%
	Indicative Credit Rating[22]	A	A	A
Regulator	PATBI/Funds Employed	6%	7%	8%
	PBIT/Sales Volume ($/GJ)	0.77	0.81	0.80
	PBIT/Total Revenue	15%	16%	16%
	PBITD/Sales Volume ($/GJ)	1.01	1.05	1.05
	PBITD/Total Revenue	20%	20%	21%
	Operating Costs per Customer	97	92	74
Investors	Profit Before Interest & Taxes	2,094,000	2,254,000	2,286,000
	Profit After Tax	619,000	611,000	704,000
	PBIT/Funds Employed	8%	9%	10%
	Operating Cash Flow	1,886,000	1,793,000	1,604,000
	PAT/Assets (Depreciated Actual Cost)	7%	6%	7%
	PAT/DORC	3%	3%	3%

Notes: 1. Based on information provided by Albury Gas Company
2. The movement in intra-company loans in 1997/98 and 1998/99 are excluded in the calculation of funds flow adequacy[23].

At current revenue levels (1997/98), AGC is earning an implied rate of return on the DORC asset value proposed by AGC ($23.5m) of 8 percent and an implied rate of return on DAC ($9.5m) of 25 percent.

21 See Appendix 1 for definitions and reasonable ranges for these financial indicators.
22 Indicative rating based on an assessment and judgement of the cash flow ratios.
23 AGC reports no debt repayment in 1996/97.

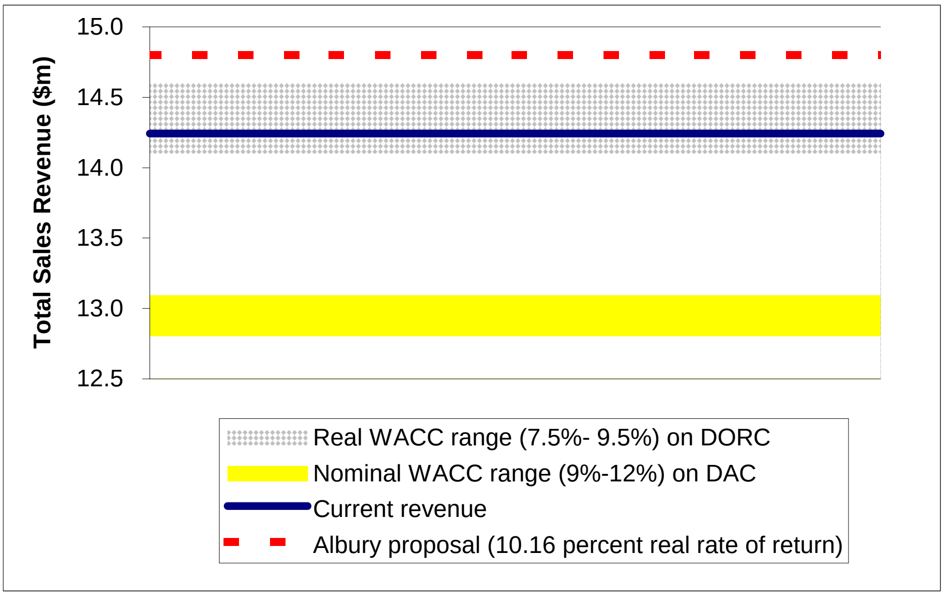
The cash flow analysis shown above indicates:

- that AGC has sufficient cash to cover both distribution and retail costs over the period 1996/97 through to 1998/99
- AGC's minimal exposure to debt[24]
- declining trends in operating costs per customer.

For 1997/1998, the AGC proposal includes an increase in current tariff market revenue of around $100,000. AGC notes that at a desired return on capital (DORC) of 10.16 percent, the business as a whole is not fully recovering costs even with a 1.3 percent tariff market price increase.

The following diagram shows the level of revenue resulting from a 10.16 percent real rate of return on the DORC asset value proposed by AGC ($23.5m) relative to current sales revenue, and the revenue range considered by the IPART Secretariat.

Figure 4.2 Albury Gas Company Total Sales Revenue consistent with 10.16 percent return (1997/98)

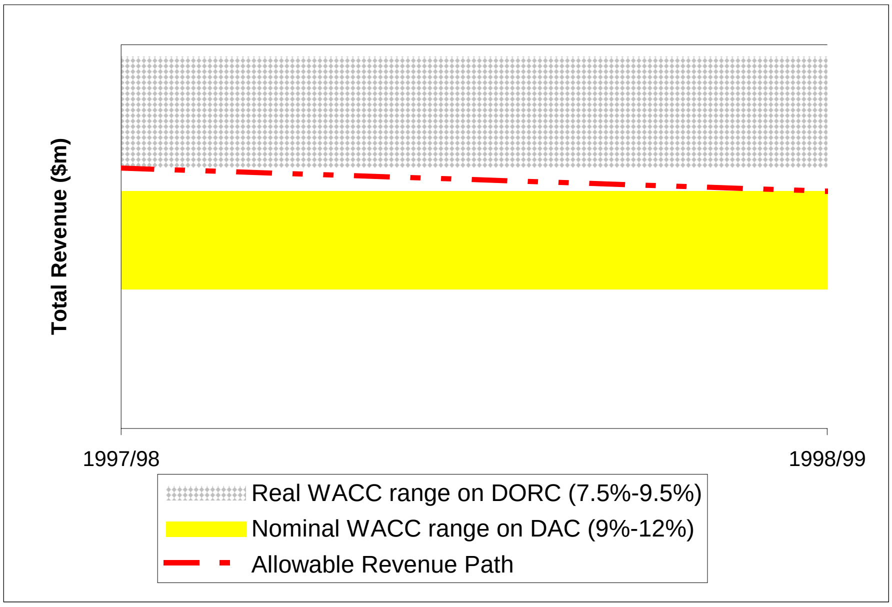


[24] AGC has proposed that whilst there is no allocation of debt from Energy 21 and Stratus Networks to the AGC stand alone business, AGC should bear a proportion of the interest costs payable on the debt of Stratus Networks. The interest costs are allocated to AGC in proportion to the gearing ratio assumed by Stratus Networks of 70 percent debt and 30 percent equity.

4.3 Comparison of Albury Gas Company with AGL Gas Networks

The following graph shows the revenue path for AGL Gas Networks as a result of the IPART determination on transport prices for the contract[25] market in the Access Undertaking released in July 1997. The reductions in revenue occur through price decreases in the contract market. The graph shows that revenue for AGL Gas Networks commences at a level of revenue consistent with a 7.5 percent rate of return on DORC and falls to a position consistent with a return on DAC of approximately 12 percent.

Figure 4.3 AGL Gas Networks Revenue Path



4.4 Tariff market

The information provided in this paper summarises the financial position of AGC's business as a whole relative to the proposals put forward by AGC, and the upper and lower revenue ranges currently being considered by the Secretariat. Any gas pricing order will affect the delivered price of gas in Albury and Moama for tariff market customers only. The proposed 1.3 percent increase applies to tariff market revenue. This equates to an increase for gas sales revenue for the AGC business as a whole of about 0.5 percent.

Based on the cost allocation[26] proposed by AGC at current revenue, the tariff market is earning an implied return on DORC of approximately 9 percent. The contract market is not fully recovering costs. This indicates varying levels of cost recovery for the two markets.

[25] Customers taking more than 10 TJ of gas per year.

[26] AGC uses a fully distributed cost allocation.

5 SUMMARY

At this stage of IPART's review of the delivered price of natural gas to tariff customers in Albury and Moama, the Tribunal notes the following :

- AGC's current total gas sales revenue for 1997/98 for Albury and Moama is forecast to be $14.2 million.
- AGC has proposed a DORC asset value of $23.5 million for 1997/98. The corresponding DAC of the Albury and Moama network assets for 1997/98 is $9.5 million.
- At current revenue, AGC is earning an implied rate of return on DAC of 25 percent and an implied rate of return on DORC of 8 percent.
- AGC has proposed an increase in tariff market revenue in 1997/98 of 1.3 percent. This equates to an increase in total gas sales revenue of about 0.5 percent. The proposal includes a further increase in the delivered price of natural gas to tariff customers in 1998/99 in Albury and Moama of no more than Victorian CPI.
- In calculating the desired revenue requirement, AGC assumes a real pre-tax rate of return on DORC of 10.16 percent (this corresponds to a nominal pre-tax rate of return on 13.47 percent).
- The proposed 10.16 percent return, which is consistent with the return proposed in the Access Arrangement for the distribution systems in Victoria[27], is not fully recouped through the requested initial increase of 1.3 percent in tariff market revenue in Albury and Moama.
- Following an analysis of WACC inputs, the Secretariat has proposed a range of upper and lower limits for revenue determination. The upper limit is consistent with a 9.5 percent real return on DORC (the maximum of the suggested range for the real pre-tax WACC). The lower limit is consistent with a 9 percent nominal return on DAC (the minimum of the suggested range for the nominal pre-tax WACC).
- AGC has proposed a level of growth related capital expenditure in both 1997/98 and 1998/99 of approximately $800,000 per annum.
- AGC reports that the standard of service delivery to Albury and Moama customers ranks highly with benchmarked industry norms.

27 These Access Arrangements are yet to be approved by ORG.

APPENDIX 1 FINANCIAL INDICATOR DEFINITIONS

FINANCIAL INDICATORS	GENERAL DESCRIPTION	DEFINITION/COMPONENTS
Funds Flow Adequacy	Ability to generate funds to cover primary cash requirements	(Net Profit after Tax + Depn & Amort + Movement in Provisions)/ (Dividends + Capex + Long Term Debt Repaid)
Funds Flow Interest Coverage	How many times funds flow covers interest payments	(Net Profit after Tax + Depn & Amort + Interest + Tax + Movement in Provisions) / Interest
Funds Flow Net Debt Pay Back	How many years will it take to payback total debt	(Total Debt-Cash) / (Net Profit after Tax + Depn & Amort + Movement in Provisions)
Internal Financing Ratio	Funds retained as a proportion of capital expenditure	(Net Profit after Tax + Depn & Amort + Movement in Provisions – Dividends) / Capital Expenditure
Pretax Interest Coverage	How many times profit before tax covers interest payments (including depreciation)	Profit before Interest and Tax / Interest Expenses
Total Debt / Total Capital	Proportion of debt to capital (gearing ratio)	Total Debt / (Total Debt + Total Equity)
PATBI/Funds Employed	Return on funds employed	(PAT + Interest) / (Total Debt + Total Equity)
PBIT/Sales Volume ($/GJ)	Ratio of profit realised per sale	Profit before Interest and Tax / Sales (GJ)
PBIT/Total Revenue	Ratio of profit realised per total revenue	Profit before Interest and Tax / Total Revenue
PBITD/Sales Volume ($/GJ)	Ratio of profit plus depreciation realised per sale	Profit before Interest and Tax + Depn & Amort / Sales (GJ)
PBITD/Total Revenue	Ratio of profit plus depreciation per total revenue	(Profit before Interest and Tax + Depn. & Amort.) / Total Revenue
PBIT/Funds Employed	Return on funds employed	Profit before Interest and Tax / (Total Debt + Total Equity)
Operating Cash Flow	Cash available for finance and investment activities	As per Cash Flow statements (Total Receipts –Total Payments)
EBIT/Operating Assets	Return on operating assets	(EBIT-Investment Income) / ((Average Total Assets) - (Average Current + Average Non-Current Investments))

Notes: 1. Depn and Amort = depreciation and amortisation
2. Funds flow interest coverage, funds flow net debt payback and internal capital expenditure financing are based on formulas used by credit rating agencies.